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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/605,736	06/29/2000	Yoichi Nakamura	Q59315	8085

7590 01/26/2005

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EXAMINER	
WORKU, NEGUSSIE	
ART UNIT	**PAPER NUMBER**
2626	

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/605,736	NAKAMURA, YOICHI	
	Examiner	Art Unit	
	Negussie Worku	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 August 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11 and 13-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *20 and 21* is/are allowed.

6)☒ Claim(s) *1-5,7-11,13,14,17-19 and 25* is/are rejected.

7)☒ Claim(s) *6,15,16 and 22-24* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Negussie

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's arguments with respect to claim 1, 2, 8, 9, 15 and 18 have been considered but are moot in view of the new ground(s) of rejection. Therefore, this office action is non-final.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5, 7-11, 13, 14, 17-19, 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Potucek et al. (USP 6,437,358).

With respect to claim 1, Potucek et al. discloses an apparatus (shown in fig 2, image reading device 200) for reading an image and producing electronic data representing the image, see (col.6, lines 15-20) the apparatus (image reading 202 of fig 2) comprising: a carrier (a transport mechanism 218 of fig 2) for receiving and supporting an image, and conveying the image along a path of travel, see (col.6, lines 12-16); a light source (light source 208 and 206 of fig 2) disposed along the path of

travel and operable for irradiating the image with visible light and non-visible light (light source 208 and 206 of fig 2, irradiating visible light and non-visible, see (col.5, lines 64-col.6, lines 15); an optical system (lens 210 of fig 2) disposed along the path of travel for collecting light after it has been irradiated upon the image from the light source (light source 206 and 208 of fig 2) at least a portion of the optical system (lens 210 of fig 1) being movably mounted for movement back and forth along the path of travel (optical system, lens 210, sensor 202 and mirror 209 of fig 2, moves back and forth as discussed in col.6, 22-25); and a line sensor system (CCD sensor 202 of fig 2) in optical communication with the optical system (lens system 210 of fig 2), (optical system lens 210 of fig 2) which receives light collected by the optical system and produces electronic data in accordance with the light received.

With respect to claim 2, Potucek et al. discloses the apparatus (shown by fig 2), further comprising a drive assembly supporting (a drive assembly or a transport mechanism 218 of fig 2), said portion of the optical system (optical system 202 of fig 2), and at least a portion of the line sensor system (line sensor 210 of fig 2), the drive assembly being operable for moving said portion of the optical system and said portion of the line sensor system together back and forth along the path of travel (optical system, lens 210, sensor 202 and mirror 209 of fig 2, moves back and forth as discussed in col.6, 22-25).

With respect to claim 3, Potucek et al. discloses the apparatus (shown in fig 2) further comprising a drive assembly (transport mechanism 218 of fig 2) supporting said portion of the optical system, (optical system, lens 210, sensor 202 and mirror 209 of fig 2, moves back and forth as discussed in col.6, 22-25) wherein said portion comprises a mirror (mirror 209 of fig 2)) oriented for reflecting light after it has been irradiated upon the image from the light source, (206 and 208 of fig 2) and the drive assembly (transport mechanism 218 of fig 2) is operable for moving the mirror (mirror 209 of fig 1) back and forth along the path of travel, (optical system, lens 210, sensor 202 and mirror 209 of fig 2, moves back and forth as discussed in col.6, 22-25).

With respect to claim 4, Potucek et al. discloses the apparatus (shown in fig 2), wherein said optical system (optical system 202 of fig 2) comprises optical elements (sensor, CCD, lens and mirror of fig 2, are optical elements) optically disposed between the mirror (sensor, (CCD), lens and mirror of fig 2 are optical elements disposed between the mirror 209 and sensor (CCD) 212 of fig 2) and the line sensor system, (24 of fig 1) with the optical elements and at least a portion of the line sensor system being supported by the drive assembly (drive mechanism 218 of fig 2) and moving together with the mirror when the drive assembly is operated, see (col.6, lines 22-25).

With respect to claim 5, Potucek et al. discloses the apparatus (shown in fig 2), wherein said portion includes an optical assembly (210 of fig 2) optically disposed between the mirror (mirror 209 of fig 2) and the line sensor system, (sensor 202 of fig 2) the optical assembly being synchronized for movement with the mirror and in the

same direction when the mirror is moved, see (col.6, lines 22-25), but at a movement rate substantially equal to one-half the movement rate of the mirror for maintaining a substantially constant optical path length between the mirror (209 of fig 2) and the line sensor system (CCD sensor 202 of fig 2).

With respect to claim 7, Potucek et al. discloses the apparatus (image reading device as shown in fig 2) wherein the light source (emitting device 206 and 208 of fig 2) is operable for separately emitting visible light and non-visible light (light source 206 an 208 are controlled power from power supply 214 via switch 213 of fig 2, and regulated by controller 216 of fig 2, see col.5, lines 60-65).

With respect to claim 8, Potucek et al. discloses the apparatus (as shown in fig 2) wherein the light source (208 and 206 of fig 2) includes a light emitting diode, see (col.5, lines 65-68).

With respect to claim 9, Potucek et al discloses the apparatus wherein the light source (a light source 206 and 208 of fig 2) includes a light guide (mirror 211 and 209, can be used for guiding the light to a platen which is a limited section where document positioned) for directing irradiation to a limited section of the image, the light guide (mirror 209 and 211 of fig 2) being mounted for movement substantially synchronously with said portion of the optical system, see (col.6, lines 22-25).

With respect to claim 10, Potucek et al. discloses an apparatus (shown in fig 2, image reading device 200) for reading an image and producing electronic data representing the image, see (col.6, lines 15-20) the apparatus (image reading 202 of fig 2) comprising: a carrier (a transport mechanism 218 of fig 2) for receiving and supporting an image, and conveying the image along a path of travel, see (col.6, lines 12-16); a light source (light source 208 and 206 of fig 2) disposed along the path of travel and operable for irradiating the image with visible light and non-visible light (light source 208 and 206 of fig 2, inherently irradiating visible light and non-visible, see (col.5, lines 64-col.6, lines 15); an optical system (lens 210 of fig 2) disposed along the path of travel for collecting light after it has been irradiated upon the image from the light source (light source 206 and 208 of fig 2) at least a portion of the optical system (lens 210 of fig 1) being movably mounted for movement back and forth along the path of travel (optical system, lens 210, sensor 202 and mirror 209 of fig 2, moves back and forth as discussed in col.6, 22-25); and a line sensor system (CCD sensor 202 of fig 2) in optical communication with the optical system (lens system 210 of fig 2), (optical system lens 2210 of fig 2) which receives light collected by the optical system and produces electronic data in accordance with the light received; and a control system (control section 216 of fig 2) electronically connected to, and controlling, the carrier, (transport mechanism 218 of fig 2) light source, (206 and 208 of fig 2) optical system, (lens 210 and line sensor, (CCD of fig 2) the control system being operable to control the light source (206 and 208 of fig 2 to irradiate the image separately with the first and second types of light) receive electronic data produced by the line sensor (sensor 202 of

fig 2) after irradiation by each type of light by moving said portion of the optical system (optical system of fig 2), back and forth along the path of travel, and correct data produced by irradiation with one type of light, based on data produced by irradiation with the other type of light, see (col.6, lines 5-15).

With respect to claims 11, Potucek et al. discloses an image reading apparatus (as shown by fig 2) which reads, by using visible light for image reading (a visible light from light source 208 and 206 are used for reading), and non-visible light for detecting inappropriate pixels, (infrared light also can be used for non visible light, see ol.5, lines 65-col.6, lines 1-5) a frame image recorded on an image frame of an original, (document 204 of fig 2) and, based on a position of an inappropriate pixel which position is obtained by irradiating the non-visible light for detecting inappropriate pixels, see col.6, lines 1-5) corrects the image data of the inappropriate pixel, (image defect correction is performed, see col.3, lines 50-60) said image reading apparatus (shown by fig 2) comprising: an irradiation section for irradiating onto the original the visible light for image reading and the non-visible light for detecting inappropriate pixels, (light source 206 or 208 of fig 2) a line sensor (sensor 202 of fig 2) which reads image information in lines along a main scanning direction, see (col.6, lines 20-25) by light which is one of transmitted through and reflected by the image frame being made incident on said line sensor (202 of fig 2); and a sub-scanning section for, while the original is stationary (original is stationary on platen 203 of fig 2), moving, in a sub-scanning direction, , (sensor 202 of fig 2) the optical assembly being synchronized for movement with the

mirror and in the same direction when the mirror is moved, see (col.6, lines 22-25) a reading position of the image frame to be read by said line sensor (sensor 202 of fig 2).

With respect to claim 13, Potucek et al. discloses an image reading apparatus (as shown in fig 2), further comprising a mirror (209 of fig 2) which deflects the light which is one of transmitted through and reflected by the image frame so that the light is made incident on said line sensor, (202 of fig 2) wherein said sub-scanning section moves said mirror in the sub-scanning direction, (sensor 202 of fig 2) the optical assembly being synchronized for movement with the mirror and in the same direction when the mirror is moved, see (col.6, lines 22-25).

With respect to claim 14, Potucek et al. discloses an image reading apparatus (as shown in fig 2) wherein said sub-scanning section integrally moves, in the sub-scanning direction,(sensor 202 of fig 2) the optical assembly being synchronized for movement with the mirror and in the same direction when the mirror is moved, see (col.6, lines 22-25), said mirror, (209 of fig 2) said line sensor, (202 of fig 2) and optical elements (lens 210 of fig 2) disposed between said mirror (209 of fig 2) and said line sensor (CCD sensor 212 of fig 2).

With respect to claim 17, Potucek et al. disclose an image reading apparatus (as shown in fig 2), wherein said irradiation section includes a light source (206 and 208 of fig 2) which separately emits at least visible light for image reading and non-visible light

for detecting inappropriate pixels, (light sources are controlled by switch 213, and regulated by controller 216 of fig 2, see (col.5, lines 60-67-col.6, lines 1-5).

With respect to claim 18, Potucek et al. discloses an image reading apparatus (as shown in fig 2), wherein the light source (206 and 208) is a light emitting diode, (LED, see col.5, lines 65-67).

With respect to claim 19, Potucek et al, discloses an image reading apparatus (as shown in fig 2), wherein said irradiation section (206 and 208 of fig 2) irradiates light only onto the reading position of the image frame (platen 203 of fig 2) and moves an irradiation position in the subs-canning direction synchronously with movement of the reading position by said sub-scanning section, (optical system, lens 210, sensor 202 and mirror 209 of fig 2, moves back and forth as discussed in col.6, 22-25).

With respect to claim 25, Potucek et al. discloses an apparatus (shown by fig 2), wherein the carrier supports (platen 203 of fig 2, supports document 204 of fig 2, from the bottom surface of the image) from at least a bottom surface of the image, as (shown in fig 2).

Reasons for allowance

4. The following is an examiner's statement of reasons for allowance: With respect to claim 20, the prior art does not teach or disclose an apparatus for reading an image and producing electronic data representing the image, the apparatus comprising:

first and second filters movably mounted so as to be selectively insert able between the light source and the line sensor system, one of the filters being of the type that substantially transmits only visible light there through, and the other filter being of the type that substantially transmits only non-visible light there through.

With respect to claim 21, the prior art does not teach or disclose a filter switching section for selectively inserting one of at least two types of filters between the light source and the line sensor, said at least two types of filters being at least one filter which transmits only visible light and at least one filter which transmits only non-visible light.

Claims having Allowable subject matter

5. Claims 6, 15,16 and 22-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With respect to claim 6, the prior arts does not disclose the apparatus further comprising first and second filters movably mounted so as to be selectively insert able between the light source and the line sensor system, one of the filters being of the type that substantially transmits only visible light there through, and the other filter being of the type that substantially transmits only non-visible light there through.

With respect to claim 15, the prior art does not discloses an image reading apparatus, wherein said sub-scanning section, includes an optical path length adjusting section for maintaining an optical path length constant even when the positional relationship between said mirror and said line sensor is changed due to the movement of said mirror.

With respect to claim 16, the prior art does not disclose an image reading apparatus, wherein said irradiation section includes: a light source which simultaneously emits visible light for image reading and non-visible light for detecting inappropriate pixels; and a filter switching section for selectively inserting one of at least two types of filters between the light source and the line sensor, said at least two types of filters being at least one filter which transmits only visible light and at least one filter which transmits only non-visible light.

With respect to claim 22, the prior art does not disclose an apparatus for reading image data, wherein in a first direction, the light source irradiates the image with visible light and in a second direction opposite the first direction, the light source irradiates the image with non-visible light.

With respect to claim 23 and 24, the prior art does not teach or disclose an apparatus, further comprising a diffuser disposed between the carrier and the light source.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Negussie Worku whose telephone number is 305-5441. The examiner can normally be reached on 7am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached on 703-305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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01/24/05

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